

TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
TPP 31424

In Re Application Of:

Magnus N. NILSSON et al

Application No. 09/964,832	Filing Date September 28, 2001	Examiner M. Huson	Customer No. 24257	Group Art Unit 1732	Confirmation No. 3731
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Invention:

A PROCESS FOR THE MANUFACTURE OF SURFACE ELEMENTS

COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:
January 16, 2007

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Dated: March 16, 2007

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re the application of

Magnus N. NILSSON et al

Group Art Unit: 1732

Serial No.: 09/964,832

Examiner: M. Huson

Filed: September 28, 2001

For: A PROCESS FOR THE MANUFACTURE OF SURFACE ELEMENTS

APPEAL BRIEF

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee of the inventors, Pergo (Europe) AB, a company of Sweden, having a principal address of Strandridaregatan 8, Trelleborg, Sweden S-231.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals known to Appellants, Appellants' legal representative or the assignee, which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 27, 32-34, 36, 37, 40, 43, 44, 52, 54, and 57-59 stand rejected. Claims 1-26, 28-31, 35, 38, 39, 41, 42, 45-51, 53, 55, and 56 have been cancelled. The rejection(s) of claims 27, 32-34, 36, 37, 40, 43, 44, 52, 54, and 57-59 is/are being appealed.

IV. STATUS OF AMENDMENTS

A single Amendment After Final Rejection was filed on September 25, 2006. The Advisory Action of December 7, 2006 indicates that the amendment has been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 27 recites a method for forming such a surface element. The surface element includes a base layer, a decor and a wear layer of a UV or electron beam curing lacquer (Page 2, lines 4 and 5). During the process, positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces (Page 2, lines 5-8). The rollers or molds are pressed into the lacquer, whereby the lacquer is provided with a surface structure, thereby enhancing the decorative effect of the decor (Page 2, lines 8-9). The wear layer is completely cured by application of a UV or electron beam (Original claim 7). During the process, the wear layer is applied in several steps with intermediate partial curing therebetween by applying a UV or electron beam (Page 2, lines 12-13 and Original claim 3).

Independent claim 32 also recites a process for the manufacture of a decorative surface element, the element including a base layer, a decor and a wear layer of a UV or electron beam curing lacquer (Page 2, lines 4 and 5). The process includes positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces (Page 2, lines 5-8). The rollers are pressed into the lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the decor (Page 2, lines 8-9). The wear layer is then completely cured by applying a UV or electron beam (Original claim 7). During the process, one or more glazing rollers is pressed towards the surface structured lacquer wear layer before the complete curing stage (Page 2, lines 15-17 and Original claim 8).

Independent claim 59 recites another process for the manufacture of a decorative surface element. The surface element includes a base layer, the base layer consists of fiberboard or particle board (Original claim 5), a decor and a wear layer of a UV or electron beam curing lacquer (Page 2, lines 4 and 5). The lacquer is an acrylic lacquer or a maleamide lacquer (Page 2, lines 11 and 12). The wear layer includes hard particles being silicon oxide, a-aluminium oxide and/or silicon carbide (Page 3, lines 26-27), with an average particle size in the range 50 nm - 150 μ m (Page 2, lines 13-14). One or more structured rollers or molds is positioned on top of the lacquer, the one or more rollers or molds provided with embossing surfaces (Page 2, lines 5-8). The structured surface of the mold is heated to a surface temperature (ST) above 40°C (Page 2, lines 25-26). The surface element has a thickness T and that the distance between each structured roller and corresponding counter stay is in the range T minus 0.5mm - 1.2mm (Original claim 17). The rollers or molds are pressed into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the decor (Page 2, lines 8-9). Finally, the lacquer wear layer is cured (Original claim 7).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Claim 27 stands rejected under 35 USC § 103(a) as being unpatentable over Scher et al. (U.S. Patent No. 4,092,198) in view of Schmook (U.S. Patent No. 5,344,692) and Correll et al. (U.S. Patent No. 6,238,750).

B. Claim 32 stands rejected under 35 USC § 103(a) as being unpatentable over Scher et al. in view of Schmook.

C. Claims 33, 34, 57 and 58 stand rejected under 35 USC § 103(a) as being unpatentable over Scher and Schmook in view of Petry (U.S. Patent No. 3,196,030).

D. Claims 36 and 37 stand rejected under 35 USC § 103(a) as being unpatentable over Scher and Schmook, in view of Eby et al. (U.S. Patent No. 5,961,903).

E. Claim 44 stands rejected under 35 USC § 103(a) as being unpatentable over Scher, Schmook and MacQueen in view of Greten et al. (U.S. Patent No. 5,498,309).

F. Claim 54 stands rejected under 35 USC § 103(a) as being unpatentable over Scher, Schmook, and MacQueen in further view of Schmid.

G. Claims 40, 43, and 52 stand rejected under 35 USC § 103(a) as being unpatentable over Scher and Schmook in further view of MacQueen (U.S. Patent No. 6,399,670).

H. Claim 59 stands rejected under 35 USC § 103(a) as being unpatentable over Scher et al. in view of Schmook, MacQueen (U.S. Patent No. 6,399,670), Petry (U.S. Patent No. 3,196,030), and James (U.S. Patent No. 6,354,915).

VII. ARGUMENT

A. Claim 27 is patentable over Scher et al. in view of Schmook and Correll

Claim 27 stands rejected as allegedly being unpatentable over Scher, in view of Schmook and Correll et al. Applicants respectfully submit that the combination of references fails to establish a *prima facie* case of obviousness.

The claimed process of claim 27 requires a “wear layer of a UV or electron beam curing lacquer” over a base layer and a decor. Scher does not teach a wear layer. To the contrary, Scher provides a “print sheet [decor] which is coated on its upper surface with a melamine resin containing finely ground pigment...” (col. 4, ln. 24-26). Scher does not teach or suggest the

provision of any lacquer, and certainly not a UV or electron beam curable lacquer, and does not teach or suggest that such melamine and pigment are a wear layer. Scher is only concerned with the flow properties of the resin and pigment such that upon "pressuring [pressing] most of the resin and pigment flows laterally from the high pressure areas [*sic* - areas] to the low pressure areas" (col. 4, ln. 32-38). In doing so, there will be areas which negate functioning as wear layers. Neither Schmook nor Correll et al. cure these deficiencies.

The Examiner has also asserted that it would have been obvious to one of ordinary skill in the art to process the materials of Scher (as modified by Schmook) as taught by Correll et al. to achieve the product recited by claim 27. Applicants respectfully submit, because the materials of Scher and Correll et al. are different, and necessarily have different properties, one of ordinary skill would not make the proposed combination. Specifically, during processing of the resin of Scher, the lacquer flows from one area to a second area during pressing. In contrast, there is no teaching or suggestion that the dry powder used to form the layers of Correll et al. will flow under any conditions. As the flow properties are essential to the invention of Scher, one of ordinary skill in the art would not have looked to the description of the invention of Correll et al., where dry powders are used. Furthermore, as neither Correll et al. or Schmook teaches lacquers, a *prima facie* case of obviousness has not been established.

B. Claim 32 and the claims depending therefrom are patentable over the combination of Scher et al. and Schmook

Claim 32 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher et al. in view of Schmook and recites pressing one or more glazing rollers toward the surface of the structured wear layer before completely curing. The Examiner asserts that because Schmook teaches pressing rollers, it would have been obvious to modify the rollers to "obtain a desired final finish of the rolled article." While Schmook teaches the use of a roller to impart *texture*, there is neither a teaching nor suggestion that to include additional rollers to produce a *glazed surface*. Even if it would have been within the skill of one of ordinary skill in the art to make such a modification of existing rollers, there is no teaching nor suggestion to provide both

texture and glaze during the process and the Examiner relies upon impermissible hindsight for motivation, as a glazed surface is more than simply smooth.

The Examiner argues that it would have been obvious to one of ordinary skill in the art to modify the procedure and apparatus of the primary reference to include glazing rollers. However, the Examiner admits, "Schmook does not specifically use glazing rollers." Accordingly, Applicants cannot understand why one of ordinary skill in the art, having knowledge of the disclosure of Schmook, would be motivated to choose a glazing roller, i.e., something not contemplated or discussed therein.

Applicants respectfully submit that this rejection cannot stand.

C. Claims 33, 34, 57, and 58 are allowable over the cited references.

Claims 33, 34, 57 and 58 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Scher and Schmook in view of Petry (U.S. Patent No. 3,196,030). However, as Petry fails to cure the deficiencies explained above, this rejection must also fail.

D. Claims 36 and 37 are allowable over the cited references.

Claims 36 and 37 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher and Schmook, in view of Eby et al. (U.S. Patent No. 5,961,903). Again, as Eby et al. fails to cure the deficiencies explained above, this rejection cannot stand.

E. The cited references do not render claim 44 obvious.

Claim 44 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher, Schmook and MacQueen in view of Greten et al. (U.S. Patent No. 5,498,309). However, as MacQueen and Greten et al. fail to cure the deficiencies explained above, this rejection must fail.

F. Claim 54 is allowable over the cited art.

Claim 54 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher, Schmook, and MacQueen in further view of Schmid. However, as MacQueen and Schmid fail to cure the deficiencies explained above, this rejection must fail.

G. Claims 40, 43 and 52 are not rendered obvious by the cited art.

Claims 40, 43, and 52 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher and Schmook in further view of MacQueen. Initially, because MacQueen does not cure the deficiencies of Scher and Schmook, this rejection must be withdrawn. Additionally, the rejected claims recite the presence of a counter stay roller associated with each glazing roller. While MacQueen may discuss the use of multiple rollers, there is no description that such rollers are counter stay rollers as claimed. Moreover, claims 43 and 52 recite specific distances between the glazing roller and structured roller, respectively, and the corresponding counter stay. Such features are neither taught nor suggested by the cited art.

H. Claim 59 is allowable over Scher et al. in view of Schmook, MacQueen, Petry, and James.

Claim 59 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Scher et al. in view of Schmook, MacQueen, Petry, and James. In order to reject this claim, the Examiner was forced to cobble together five references and fabricate motivations out of thin air to combine the teachings of the references in order to find the claim unpatentable.

The Examiner admitted that:

1. Scher et al. does not show using a UV curable lacquer.
2. Scher et al. does not specify using a wear layer with the specified hard particles.
3. Scher et al. does not teach the use of particle board (or fiberboard).
4. Scher et al. does not give a specific surface element thickness.
5. Scher et al. does not show operating the rollers at a specific thickness.
6. Scher et al. does not specify the identity of the particles.

For example, the Examiner argued that Scher et al. does not disclose the "several step" application and cure process, but mistakenly relies upon the secondary references for such a teaching (see above).

The Office Action also recognizes Scher et al. does not teach the lacquer presently claimed. However, the Office Action states that it would have been obvious to use the acrylic lacquer of MacQueen "to produce an article having properties of an acrylic lacquer." However, the Examiner has failed to even attempt to identify any reason that one of ordinary skill in the art would have wanted to produce a product having properties of an acrylic lacquer. The Examiner has relied upon impermissible hindsight as any motivation "to produce an article having properties of an acrylic lacquer" has not even been alleged.

VIII. CONCLUSION

As the Examiner has failed to identify in the cited art each feature recited by the present claims, or in the alternative, establish why one of ordinary skill in the art would be motivated to modify the prior art, Appellant urges the Examiner committed reversible error in repeatedly rejecting the claims of this application as being unpatentable over the cited art.

APPENDICES

The following Appendices are attached to and made part of this brief:

Appendix A	Claims Appendix under 37 CFR § 41.37(c)(1)(viii)
Appendix B	Additional Evidence under 37 CFR § 41.37(c)(1)(ix)
Appendix C	Copies of Decisions under 37 CFR § 41.37(c)(1)(x)

Respectfully submitted,



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APPENDIX A

CLAIMS ON APPEAL

27. A process for the manufacture of a decorative surface element, which element comprises a base layer, a decor and a wear layer of a UV or electron beam curing lacquer, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces,

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the decor, and thereafter

completely curing the wear layer by applying a UV or electron beam

wherein the wear layer is applied in several steps with intermediate partial curing between said steps by applying a UV or electron beam.

32. A process for the manufacture of a decorative surface element, which element comprises a base layer, a decor and a wear layer of a UV or electron beam curing lacquer, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces,

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the decor, and thereafter

completely curing the wear layer by applying a UV or electron beam,

wherein one or more glazing rollers is pressed towards the surface structured wear layer before the complete curing stage.

33. A process according to claim 32, wherein the structured rollers are heated to a surface temperature (ST) above 40°C.

34. A process according to claim 32, wherein the glazing rollers are heated to a surface temperature (ST) above 30°C.

35. (Cancelled).

36. A process according to claim 32, wherein a thin top coat is applied on top of the structured wear layer after the glazing stage.

37. A process according to claim 32, wherein a thin top coat is applied on top of the structured wear layer before the glazing stage and that the top coat is partially cured before the glazing.

40. A process according to claim 32, wherein each glazing roller is provided with a counter stay roller between which the surface element is passed.

43. A process according to claim 40, wherein the surface element has a thickness T and that the distance between each glazing roller and corresponding counter stay is set in the range T minus 0.7mm - 1.2mm.

44. A process according to claim 43, wherein the pressure between each glazing roller and its corresponding counter stay is 0.1 - 10 Bar.

52. The process according to claim 43, wherein the distance between each structured roller and corresponding counter stay is in the range T minus 0.7mm - 0.9mm.

54. The process according to claim 43, wherein the pressure between each glazing roller and its corresponding counter stay (P) is 65 - 100 Bar.

57. The process according to claim 33, wherein the structured rollers are heated to a surface temperature (ST) in the range of 50°C - 150°C.

58. A process according to claim 34, wherein the glazing rollers are heated to a surface temperature (ST) in the range of 35°C - 100°C.

59. A process for the manufacture of a decorative surface element, which element comprises a base layer, the base layer consists of fiberboard or particle board, a decor and a wear layer of a UV or electron beam curing lacquer, wherein the lacquer is an acrylic lacquer or a maleamide lacquer, wherein the wear layer includes hard particles comprise at least one selected from the group consisting of silicon oxide, a-aluminium oxide and silicon carbide, with an average particle size in the range 50 nm - 150 µm, said process comprising the steps of:

positioning one or more structured rollers or molds on top of the lacquer, the one or more rollers or molds provided with embossing surfaces, wherein the structured surface of the mold is heated to a surface temperature (ST) above 40°C, wherein the surface element has a thickness T and that the distance between each structured roller and corresponding counter stay is set in the range T minus 0.5mm - 1.2mm;

pressing said one or more rollers or molds into said lacquer, whereby the lacquer will be provided with a surface structure, thereby enhancing the decorative effect of the decor, and thereafter;

completely curing the wear layer.

APPENDIX B: Evidence Appendix under 37 CFR § 41.37(c)(1)(ix)

N/A

APPEAL BRIEF

U.S. Appl. No. 10/440,317
Atty. Docket No. TPP 31347DIV

APPENDIX C: Related Proceedings Appendix under 37 CFR § 41.37(c)(1)(x)

N/A